Data Logger Preparation
Lab Guide

Task

Prepare and assemble the data logger and cables. Load the data logger software.

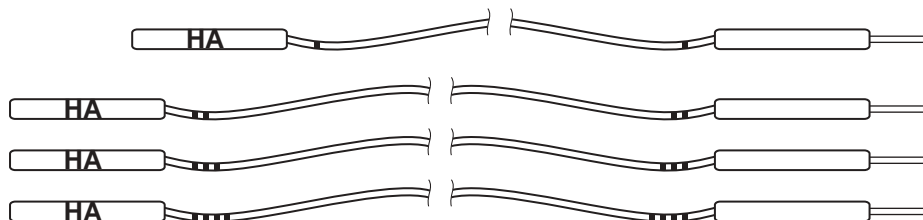### *What You Need*

Data Logger/Sensor Assembly

❑ H08-006-04 HOBO H8
   4-Channel External

❑ TMC1-HA Wide-range temperature
   sensor, 0.3 m (1 ft) cable (1)

❑ TMC20-HA Wide-range temperature
   sensor, 6.1 m (20 ft) cable (3)

Computer interface

❑ BoxCar Pro® v.3.5+ or v.4.0 software

❑ Water tight box such as Rubbermaid #1 square
   sandwich box (~0.5 L volume)

❑ $CaSO_4$ or other dehydrating agent (100 mL)

❑ Strain-relief connectors (4)

❑ PC or MAC computer interface cable

In the Lab

1. Use a permanent marker to mark BOTH ends of four TMC6-HA sensor cables. Place marks about 1 cm from the reinforced plug tip. Use 1,2,3 or 4 lines drawn completely around each cable. Label the short cable number 1.
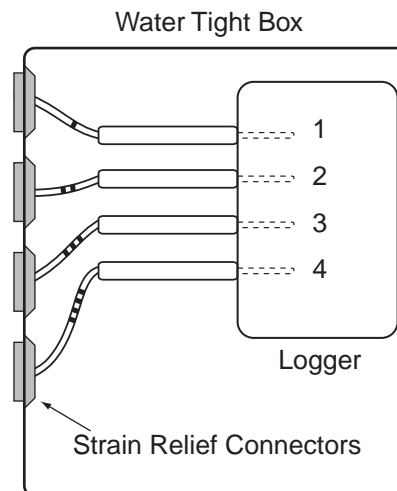

2. Seal cables and data logger in a water-tight box

   Option A) Using strain relief connectors:

   • Drill or punch out four equally-spaced, 12 mm (1/2") holes in sidewall.

   • Install strain relief connectors, using a bit of silicon sealant around the threads.

   • Insert sensor cables through connectors and plug into appropriate data logger sockets.

Note: a set of strain relief connectors can be obtained by sending your mailing address to: the GLOBE Help Desk (U.S. schools) or your Country Coordinator (all other schools).

Water Tight Box

Logger

Strain Relief Connectors

OR

Option B) Using wire ties and silicon sealant:

- Drill four equally-spaced, 5 mm (1/4") holes in a sidewall.

- Insert sensor cables through the sidewall and plug into appropriate data logger sockets.

- Fasten wire ties snugly against inside wall.

- Fasten wire ties snugly against outside wall.

- Apply silicon sealant around wires and between wire ties and hole in the side wall.

- Let dry/cure for 24 hrs.

3. Load the Boxcar Pro software on your computer. If you are using a MAC, you must download the software from: www.onsetcomp.com/Support/2543_MacBCP.html

- Follow the software installation instructions on page 1 of the BoxCar Pro® User's Manual.

- Connect the serial cable to a PC (9-pin, D-type) COM port OR to a MAC (8-pin, O-type) modem port.

- Check the date and time on your computer to ensure that they are correct.

- Run c:\Bxcrpro3\Bxcrpro.exe (default location) or double click on the BoxCar Pro® icon.

Note: Newer iMAC/G3 and G4 Apple computers with USB ports require additional cable adapters.